



Abstract of the Invention

A substrate processing pallet has a top surface and a plurality of side surfaces. The top surface has at least one recess adapted to receive a substrate. The recess includes a support structure adapted to contact a portion of a substrate seated in the recess and a plurality of apertures each adapted to accommodate a lift pin. Lift pins can extend through the apertures initially to support the substrate and retract to deposit the substrate onto the support structure. A side surface includes a process positioning feature adapted to engage with a feature located in a process chamber to position the pallet. A side surface includes a positioning feature adapted to engage with an end effector alignment feature to position the pallet with respect to the end effector during transport. A side surface includes support features adapted to engage with end effector support features to support the pallet during transport.

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